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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,516	07/31/2001	Alexander Bleibler	3827.082	3545

7590 10/24/2003

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EXAMINER

CHAN, SING P

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,516

Applicant(s)

BLEIBLER, ALEXANDER

Examiner

Sing P Chan

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-44 is/are pending in the application.
- 4a) Of the above claim(s) 33-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 22-32 and 44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Species I in Paper filed on July 28, 2003 is acknowledged. The traversal is on the ground(s) that the flat strip lamella of Group I cannot be made without the process of the elected Group II, Species I. This is not found persuasive because the flat strip lamella of Group I, claim 38, does not recite the required process to form the flat strip lamella and therefore, can be made by any method such as dip impregnation or resin film lamination of a cloth of reinforcing fibers with interwoven transverse fibers, which Ozaki et al (U.S. 6,027,794) had disclosed. Therefore, the special technical feature is not required and there is no unity of invention and lack of unity is held by the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Minnick et al (U.S. 5,175,198).

Regarding claim 22, Minnick et al discloses a method of forming a thermoformable/polycarbonate/woven glass cloth composite. The method includes providing a knitted woven glass cloth, providing thermoplastic films, positioning the cloth

and films in a Controll press, heating the melt impregnate the cloth, and cooling the laminate under pressure. (Col 7, line 46 to Col 8, line 15)

Regarding claim 24, Minnick et al is considered to disclose conveying the glass cloth between the heating section and cooling section, i.e. pass-through segment in the longitudinal direction of the reinforcing fibers.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198).

Minnick et al discloses the woven glass cloth is drawn from rolls, but is silent as to the thermoplastic films are drawn from rolls. However, one in the art would appreciate providing the film on rolls to allow easy storage and handling and would logically provide the thermoplastic film on rolls.

It would have been obvious to one skilled in the art at the time the invention was made to logically thermoplastic film on rolls in the method of Minnick et al to allow easy storage and handling of the film when needed.

6. Claims 25, 26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198) in view of Green (U.S. 4,252,593).

Regarding claims 25 and 26, Minnick et al as disclosed above is silent as to providing releasable protective film on the side of the thermoplastic film facing away from the support fiber web. However, providing a releasable protective film on the side of thermoplastic film facing away from the support fiber web is well known and conventional as shown for example by Green. Green discloses a method of forming reinforced composites. The method includes providing a releasable film on the thermoplastic film to prevent adhesion to the heated platen or rollers and allow easy release and removal of the protective film from the laminate. (Col 16, lines 15-19)

It would have been obvious to one skilled in the art at the time the invention was made to provide releasable protective film as disclosed by Green in the method of Minnick et al to prevent adhesion of the thermoplastic film to the heated platen or rolls and to allow easy removal of the protective film from the laminates.

Regarding claim 32, Minnick et al as disclosed above is silent as to multiple individual flat strips are surface bonded to each other for increasing wall thickness. However, bonding individual flat strips to each other to increase wall thickness is well known and conventional as shown for example by Green. Green discloses multiplayer laminates can be made by interleaved the films and layers of cloths and bonding with heat and pressure, which would increase wall thickness. (Col 16, lines 45-47)

It would have been obvious to one skilled in the art at the time the invention was made to bond multiple layers of films and cloths, i.e. individual flat strip, as disclosed by Green in the method of Minnick et al to provided a thicker and stronger laminate easily and quickly.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198) in view of Green (U.S. 4,252,593) as applied to claim 25 above, and further in view of Oizumi et al (U.S. 4,372,800).

Regarding claim 27, Minnick et al as disclosed above is silent as to the protective films are drawn from rolls. However, providing protective film on rolls is well known and conventional as shown for example by Oizumi et al. Oizumi et al discloses a method of forming a reinforced resin laminates. The method includes providing films covering with release agent. (Col 18, lines 32-40 and Col 20, lines 48-56)

It would have been obvious to one skilled in the art at the time the invention was made to provide protective film on rolls as disclosed by Oizumi et al in the method of Minnick et al to allow easy handling, storage, and feeding of the covering film into the process.

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198) in view of Trunzo et al (U.S. 3,811,005).

Minnick et al as disclosed above is silent as to the laminate is wound upon a material roll. However, winding material into roll is well known and conventional as shown for example by Trunzo et al. Trunzo et al discloses a method of forming a resin impregnated glass-mica composite. The method includes heating the laminate of glass cloth and mica paper impregnated with resin, cutting the laminate into sheets or tape, and rolled into rolls for storage. (Col 3, lines 1-9)

It would have been obvious to one skilled in the art at the time the invention was made to roll the laminate into rolls as disclosed by Trunzo et al in the method of Minnick et al to allow for easy storage and handling.

9. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198) in view of Sprengling (U.S. 4,496,415).

Regarding claims 29 and 30, Minnick et al as disclosed above is silent as to subdividing the strips and stacking the lamellas. However, subdividing and stacking the lamellas are well known and conventional as shown for example by Sprengling. Sprengling discloses a method of impregnating resin into a laminate lay up. The method includes cutting the laminate lay up and stacking the lamellas for storage. (Col 5, lines 31-39)

It would have been obvious to one skilled in the art at the time the invention was made to cut the lamellas to desired length and stack the lamellas for storage as disclosed by Sprengling in the method of Minnick et al to allow the lamellas to be cut into the desired length for easy application and for easy storage.

Regarding claim 31, Minnick et al as disclosed above is silent as to the laminate is pressed, heated and cooled between tow rotating press bands. However, using rotating press bands is well known and conventional as shown for example by Sprengling. Sprengling discloses the laminating machine includes a pair of endless steel belts for heating the laminate. (Col 5, lines 3-17)

It would have been obvious to one skilled in the art at the time the invention was made to provide steel belts for applying pressure as disclosed by Sprengling in the method of Minnick et al to allow pressure to be applied evenly easily to the laminate.

10. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minnick et al (U.S. 5,175,198) in view of Meier et al (U.S. 5,937,606).

Minnick et al as disclosed above is silent as to using the laminate for reinforcing a load bearing structure. However, using a reinforcing laminate to reinforce a load bearing structure is well known and conventional as shown for example by Meier et al. Meier et al disclose a reinforce laminate of any desired material can be used to affixed onto the structure with epoxy resin. (Col 9, lines 8-15)

It would have been obvious to one skilled in the art the time the invention was made to reinforce a load bearing structure as disclosed by Meier et al with a reinforce laminate such as made by the method of Minnick et al to provide additional reinforcement to the load bearing structure with a simple and easy process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P Chan whose telephone number is 703-305-3175. The examiner can normally be reached on Monday-Friday 7:30AM-11:15AM and 12:15PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Chan Sing Bo
spc

Richard Crispino
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